

# **SYSTEM FOR ROUTING DATA PACKETS THROUGH A CROSSBAR SWITCH IN EXPANSION MODE**

## **Abstract of the Disclosure**

The present invention describes a switching module for use either in port or speed expansion mode. The switching module is preferably used in a data transmission system consisting of a number of Local Area Networks LANs interconnected by a hub which includes a number of LAN adapters respectively connected to said LANs. A crossbar switch interconnects all LAN adapters and consists of switching modules having first receiving means for storing a first number of data packets; second receiving means for storing a second number of data packets; first outputting means for outputting a first subset of the first number of data packets and the second number of data packets; second outputting means for outputting a second subset of the first number of data packets; and switching means, coupled to the first and second receiving means and coupled to the first and second outputting means for routing the first and the second subsets of the first number of data packets and the second number of data packets to the respective first or second output means. The routing of the incoming data packets to their final destination is done without modifying the data packet header as a data packet sent by a source of adapter contains in its header the physical address of the destination adapter.

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## Figures

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.